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# The Effect of Taxation on Securities

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IN considering the effect of taxation on securities there will be examined briefly the general theory recognized by economists and then the practical effect of various tax measures showing the theory in application. By reason of the complexity of our tax systems and the conflict of tax influence caused by the diverse laws and rates of the several states and their political subdivisions, and because of the overshadowing influence of the present system of federal taxation made necessary by the late war, the treatment of the subject will be general with no pretense of being exhaustive.

## GENERAL PRINCIPLES

### *Effects of Taxation on Bondholders*

*The Incidence of a Bond Tax.*—In the application of general principles simplicity is desirable. For this reason let there be considered the theoretical effect of a tax upon the ordinary corporation bond. The two generally recognized taxes in the United States affecting such a bond are direct personal property taxes and income taxes. The personal property tax is generally imposed upon the principal of the bond. The income tax is imposed upon the interest the bond bears. To realize the effect of a personal property tax upon the principal of the bond, take the hypothetical case of a bond owned in a state having no personal property tax and no income

tax. If such a state were to pass a law imposing a 1 per cent tax upon the principal of a \$1,000 bond bearing 5 per cent the owner would be obliged to pay \$10 in taxes each year. This would reduce the income on the bond from \$50 to \$40 a year. If the state, instead of enacting the personal property tax just stated, were to pass an income tax law taxing the bond owner 20 per cent upon the interest of the bond, the owner would be obliged to pay \$10 in taxes each year. This would make exactly the same reduction in his income from the bond, which would then yield only \$40 a year. It may be seen, therefore, because as a general proposition all taxes are paid out of income, that it is immaterial, in considering the effect of a tax on the bond, whether the tax is based upon its principal or income. If the owner of the bond has a capital of \$100,000 consisting entirely of similar bonds, the effect of the tax in either case is a reduction of his income from \$5,000 to \$4,000 a year so long as he holds the bonds and they are subjected to such taxes.

*The Capitalization of a Tax.*—What effect would such a tax have upon the price of such a bond should the owner desire to sell it? If the ordinary investment return at the time were 5 per cent upon such a bond selling at par, the price of the bond would fall from par to 80, and he would be able to realize only \$800 in the case of

a sale. The purchaser would demand the going return of 5 per cent on the bond and, if he bought it for \$800, he would obtain a net return, after paying the \$10 tax, of \$40 a year, which is 5 per cent on \$800. This change of price is called the capitalization of the tax and is the general principle affecting the taxation of securities. In this process the tax is discounted by a depreciation of the price of the bond equivalent to the capital value of the tax. The purchaser avoids the burden of the tax, which he must pay annually, by giving a price for the bond that will allow him to pay the tax and still receive the normal interest return on his investment. In this case, the burden of the tax falls entirely on the original owner of the bond because he owned it before the tax was imposed. The purchaser who discounted the tax will realize the price he paid when he makes a sale, assuming that the same conditions obtain, and that all future purchasers under like conditions will do the same.

*Effect of Evading a Tax.*—Suppose, however, that the owner of the bonds needed an income of \$5,000 a year from them and could not afford to sell and take a loss of \$200 a bond, what are his alternatives? He must either evade the payment of the tax and become a law breaker or subject his securities to the law of another jurisdiction. In the case of the personal property tax he might accomplish the removal by placing the bonds in trust where they would be subject to a more favorable tax law or, in the case of both taxes, by changing his residence to a state where the tax laws were less burdensome. The tendency of the effect of the tax upon

the security market of the state would be the same in either case. The personal property tax would operate alike upon all holders of similar securities but the income tax would operate according to the size of their incomes. The necessity of evasion would have a detrimental effect in discouraging sales of taxable securities while the removal of capital to other jurisdictions would lessen the supply of capital in the particular investment market.

#### *Effect of Taxation on the Borrower*

*To Raise the Interest Rate.*—Having examined the effect of such a newly imposed tax upon the holder of bonds, who is the lender, what would the effect be upon the borrower, or the maker of the bonds? If the borrower had disposed of the bonds before the imposition of the tax it would be advantaged to the extent of its ability to purchase its bonds in the open market at \$800 for each \$1,000 and thus retire at a discount that portion of its debt which it might be able to purchase. If, however, the bonds constituted a part of an open issue and it became necessary to sell a further amount of the same kind of bonds bearing the same rate of interest after the imposition of the tax it would be obliged to sell them on the basis of a market of 80 and would thus lose to the extent of the discount. This would capitalize the tax for the benefit of the purchaser.

If the mortgage securing the bonds permitted a change in interest rate, then the corporation might avoid the discount by capitalizing the tax through an increase in the rate of interest. In order to sell the bonds at par when the personal property tax is 1 per cent

of the principal, the rate of interest on the bonds would have to be increased from 5 to 6 per cent. The purchaser would then receive a net return of \$50, or 5 per cent on his investment. In the case of a 20 per cent income tax the theoretical rate of interest would need to be increased to 6.25 per cent so that the bondholder would receive \$62.50 interest each year, and after paying a 20 per cent income tax, which would equal \$12.50, would have left \$50 or 5 per cent on his investment. In the case of selling its 5 per cent bonds at 80 the corporation would pay 6.25 per cent for its borrowed money and in the case of raising the interest rate to yield 5 per cent to the investor it would be paying either 6 per cent or 6.25 per cent dependent on the tax method. In either case the effect of the tax is to raise the interest rate on new borrowings. The tendency to drive capital from a given investment market on the one hand, by lessening the original lender's return on his investment, and the raising of interest rates to the borrower in the case of new borrowing, on the other hand, have the effect of increasing interest rates toward a point that will capitalize the tax.

*Effect of Higher Interest Rate.*—It seems clear that the main effect of the tax is to increase the cost of borrowing. Until new capital is needed the borrowers who secured capital before the imposition of the tax are benefited to the extent of the increase in rate. When the time of new borrowing arrives, however, all borrowers are placed in the same position. Inasmuch as the tax is an addition to the cost of money, the lender will endeavor to secure what he considers a normal

investment return by increasing the interest rate. Unless this can be accomplished the income of the lender will be diminished and the supply of funds seeking investment will be reduced. Unless the lender can secure a normal return on his money from the taxed securities he will transfer his funds to untaxed securities, while the tax will turn away new capital that would normally seek the particular investment field. In either case the supply of funds for the particular class of investment will diminish and capital, if invested, will demand an increase of rate. The borrower, therefore, stands the burden of the tax.

*Factors Influencing Interest Yield.*—The foregoing illustrations of the general principles governing the effect of taxation have been put in the simplest form for purposes of clarity. As a matter of practice many other factors must be considered. There is no uniformity in rates of taxation among the states or even among different kinds of capital investments in the same state. An equal rate of tax on all capital is a practical impossibility. The rate of interest fluctuates according to seasonal and competitive demands. It varies according to the safety of the investment, the term of the loan, the character of risk and many other factors that could be mentioned. These various factors often obscure the capitalization of a tax and make it extremely difficult to determine the exact effect of taxation. In such cases taxation becomes one of a number of factors influencing the price of securities or the rate of their yield. Some of these factors will be considered in connection with taxes of a special character. In the

United States, the taxes that most affect the price of bonds at present are state taxes imposed on principal or income, and the federal income and excess profits taxes.

#### STATE TAXES

##### *Difficulty of Measuring the Influences of State Taxes*

There is no uniformity either of method or rate in the tax systems of the states that would enable an investor in securities to obtain a mathematical rule to measure their effect. If each particular money market were confined to the state lines within which state tax laws operate directly then definite rules for computing the effect of a definite tax might be formulated. The demand and supply of money do not, however, recognize political boundaries of states any more than they do those of nations. If any illustration were needed to show this, the method of establishing the districts of the federal reserve system would suffice. The districts ignore state lines and are based upon the normal lines of the commercial flow of money. Some states have graduated property taxes and others flat rates for all property. Some states have substantially a flat rate income tax while others have income taxes graduated as to rates. Some states exempt certain incomes and classes of property from taxation while others tax alike incomes and property.

##### *Effect of General Property Tax in Illinois*

As a typical illustration of the difficulty of computing the influence of a state tax on securities consider the situation in Illinois. This state

has a general property tax law and the constitution does not allow classification of property for tax purposes. For some years the tax rate has averaged around 2 per cent on the actual value of bonds. The rates for the several counties have varied, but in Cook County, where Chicago is located and where the major part of the personal property of the state has its tax situs, 2 per cent has been the rate for all practical purposes. Applying the capitalization theory, 5 per cent industrial bonds owned in Chicago, when the normal investment return on such bonds is 5 per cent, ought to sell at 60 and new issues of such bonds ought to bear 7 per cent. Neither of these results has followed, so the tax influence is overcome by other influences. Such bonds have sold for practically the general market price of securities of like rate and character. It is true in Illinois, as in other states having an unclassified property tax, that comparatively little personal property is reached by taxation so that the effect of the tax is negligible compared with the effect of the condition of the security market. The factor of competition under such circumstances completely obscures the effect of the tax rate.

If, however, the effect of the tax rate be considered in its application to securities of a local nature having a restricted local market, the effect might be more pronounced. For instance, if the bonds in question, instead of being underwritten by a dealer having a country wide market at his disposal, or being bonds of a character suitable to a general market, were bonds amounting substantially to a real estate loan issue in bond form and

were underwritten by a local dealer having a local market, the effect of the tax would be freer from the effect of general security market conditions as to rate of return. Such securities sell on a higher yield basis and probably the tax rate is one of the factors of the cause of increase. In states where the amount of personal property actually subjected to tax is as small as it is in Illinois, it is impracticable to attempt to estimate the effect of the tax by any percentage factor even in the case of such securities. If, however, Illinois should change its policy of direct taxation of personal property to an income tax, the effect might be so marked as to be capable of expression in figures.

#### *Effect of Income Tax in Massachusetts*

The state of Massachusetts after proceeding for some years under a direct tax on intangibles, amounting to an average of 1.9 per cent, adopted an income tax amounting to practically 6 per cent on the income from intangibles. According to the officials in charge of the administration of the tax law, the effect of the change has been to greatly increase the amount of the tax base and they conclude that most of the property subject to tax, that had previously escaped the burden of taxation, has been brought under the operation of the tax law. The practical result has been a decrease in the rate of tax on the principal of securities from 1.9 per cent to 0.3 per cent. Such a marked decrease is bound to have an effect on security rates. If the states surrounding Illinois had in operation a personal property tax imposing substantially the same rate on personal property as

that imposed by the state of Illinois and then simultaneously changed their methods of taxation to an income tax operating to reduce the rate to 0.3 per cent, it is certain that the tendency of the effect of the new taxes would be to cause a flow of capital from Illinois into the surrounding states. This is indicated by the present condition of taxation as between the states of Illinois and Indiana. In Indiana the direct tax rate upon intangibles has averaged as much as 3 per cent. In addition the tax laws of that state have had a reputation of being more stringently enforced by means of drastic provisions for discovery and punishment than in most jurisdictions. The result is that investment capital has a greater tendency to come to Chicago than to go to Indianapolis, the natural investment center of the state.

#### *Taxable and Tax Exempt Bonds*

The effect of a state tax upon the price of bonds may be noted with more particular emphasis in a comparison of taxable with tax exempt securities of the same class. In Indiana, for instance, tax exempt municipal bonds sell somewhere around a 0.5 per cent lower yield basis than municipal bonds of the same character and rate that are subject to tax. The state of Ohio exempts from taxation municipal bonds issued before January 1, 1913. In the present market in the state the tax exempt bonds sell to yield around 4.40 to 4.50 per cent while bonds of the same class issued since that date sell on a 4.90 to 5 per cent basis. In the state of Georgia, where all local municipal issues are tax exempt, the local municipal bonds sell around a 4.75 per cent basis as

against a 5.10 to 5.20 per cent basis for other municipals of the same class that are taxable in the state. The effect of the exemption is thus to cause exempted securities to sell at a premium and taxed securities to sell either at a discount or to bear higher interest rates.

In 1905 Massachusetts exempted future issues of state bonds from taxation. The municipalities of the state asked for a similar exemption of their securities. Municipalities at the time were paying around 4 per cent on their issues. The tax rate of the state averaged from 1.5 to 2 per cent. So many of the obligations of these municipalities were held by exempt holders that the municipalities could not expect to receive a reduction in interest rate to the amount of the tax but the broader market opened to such securities, in consequence of the exemption, resulted in an immediate reduction of 0.25 per cent in the interest rate. Investigation disclosed that March issues of municipal notes sought around the tax date increased nearly 300 per cent between 1911 and 1916. Interest rates on these issues were very low, in some cases falling below 2 per cent and in others 1.3 per cent and even to 0.25 per cent. One city even received a small premium for accommodating an investor with \$100,000 of notes maturing near tax day.

#### *Limitations of the General Property Tax*

Instances might be multiplied to show the effect of state taxation. The effect of the state taxes, where their influence can be felt, may be worked out to fit the investor of each state in a substantially satisfactory manner. Any attempt to set out a

general rule is futile. The effort by the states to tax all property at a uniform rate is generally admitted by tax officials and economists to have been a complete failure in so far as it applies to intangibles. There have been tried four general substitutes. There is the mortgage recording tax, following the principle of the New York tax of 0.5 per cent based upon the face value of the debt secured by real estate mortgages, the tax being paid before recording the mortgage. This plan usually exempts from tax in the hands of the local holder the bonds or notes evidencing the debt. Then there is the plan of registering securities not coming under the mortgage tax and the payment of a fixed rate on the principal. In some cases this exempts securities registered for taxation until maturity; in others for a given period, such as the five year period in Connecticut. The third plan taxes intangibles at a rate lower than the tangible property rate. The fourth plan taxes the income rather than the principal. In 1912 the constitutions of two-thirds of the states prohibited the classification of property for taxation, but in the last few years about half of the forty-eight states have removed this constitutional restriction.

#### FEDERAL TAXES

The federal taxes more particularly affecting securities comprise the income tax and excess and war profits tax. The direct effect of federal taxation, which is uniform in its application, may be measured in some ways more definitely than that of state taxation, which is diverse both in method and rate. The chief difficulty

of measuring its effect accurately is due to the graduated rates. While the sixteenth amendment of the federal constitution permitting a tax to be levied upon incomes without regard to apportionment was adopted February 25, 1913, the first income tax law was enacted upon October 3, 1913, before the outbreak of the war, on account of depressed conditions causing a loss in revenue derived from imports. The effect of the law has been partially obscured by the outbreak of the European War in August, 1914, and the war conditions that have followed. Being a new tax imposed on top of all state taxes and having a country wide effect, its influence upon the security market has been very definitely felt in several directions.

#### *Tax Exempt Securities*

The influence of the income tax will be considered in its relation (1) to municipal bonds, (2) government bonds and (3) federal farm loan securities.

*Municipal Bonds.*—The exemption of the income from municipal bonds under the income tax law has been a dominating factor in the municipal bond market since 1913. The general yield of municipal bonds throughout the United States for the years from 1910 to 1913 was about 4 per cent. In 1913 the constitutional amendment authorizing the imposition of a federal income tax was adopted. By the middle of that year the yield had increased to 4.5 per cent and it fluctuated from this figure to about 4.25 per cent in the years 1914 and 1915 dropping to 4 per cent in the last of 1916. The yield steadily rose in 1917,

the year of our entry into the war, until in the early part of 1918 it had risen above 4.5 per cent and in 1919 it remained around 4.5 per cent. Making allowances for the effect of the conservation of capital with the consequent restrictions imposed on the issuance of municipals by the Capital Issues Committee, and the effect of liberty loan flotations, the federal income tax law has been a strong factor in holding down the yield which has risen from 0.25 to 0.5 per cent and which would probably have risen 1 per cent or more but for the tax influence. The general effect of the law, exempting such securities from the burden of the tax, was to cause funds that normally would have been invested in corporation bonds and mortgage notes to be diverted into stocks and municipal bonds. Dividends from stocks being exempt from the normal tax only and municipal bond interest being entirely exempt, the flow of investment capital toward municipals was greater.

This tendency of investment is strikingly illustrated by a comparison of the income figures of 1917 with those of 1916 as reported by the Commissioner of Internal Revenue. In 1916 the total personal income reported for tax was \$8,349,901,983 and in 1917 it was \$12,077,009,284. Of these totals the amount of *income from property* as distinguished from wages, business profits and the like, was \$3,861,150,687 in 1916 and \$4,469,901,354 in 1917. The income comprising interest from bonds, notes and the like was \$1,080,879,405 in 1916 and \$936,715,456 in 1917. This shows a decrease in the income from this class of investments amounting to \$144,-



163,949 in the face of a net increase in income from property amounting to \$608,750,667. What amount of the diversion went into municipal bonds is of course not disclosed by the income tax statistics. The following figures, showing the comparative yields of municipal and taxable bonds under the personal income tax rates effective for incomes of 1919, illustrate the effect of the income tax on municipals and upon the higher rates corporate securities must bear to reach an equal yield basis. These figures have been taken from computations believed to be reliable.

A municipal bond

yielding 3½%	yielding 4%	yielding 4½%	yielding 5%	When the holders net income is
is equivalent to a taxable bond yielding				
3.93	4.49	5.06	5.62	\$10,000
4.17	4.76	5.36	5.95	20,000
4.43	5.06	5.70	6.33	30,000
5.07	5.80	6.52	7.25	50,000
7.95	9.09	10.23	11.36	100,000
9.72	11.11	12.50	13.89	200,000
12.07	13.79	15.52	17.24	500,000

It is interesting to note what the effect would be if municipal bonds were taxed as some members of Congress ineffectually attempted when the 1918 revenue act was pending. In his last annual report the Secretary of the Treasury stated that the highest brackets of the surtax had passed the point of productivity and that the only consequence of any further increase would be to drive possessors of large incomes more and more to place their wealth in the large amount of wholly exempt securities issued and still being issued by states and municipalities. The weight of legal opinion is against the power of Congress to tax the income from municipal bonds, but

what would be the effect of the tax upon such income were it possible? To answer this question, consider the income of a citizen or resident of the United States who is married and has no children, and has a consequent individual exemption of \$2,000. If such a man has a net income of \$15,000, \$5,000 of which consists of income from state or municipal bonds, his tax now is \$590 a year. Under the present operation of the law his tax is computed on the brackets up to \$10,000. Under the changed computation he would bear a tax on the brackets up to \$15,000 and his tax would be \$1230. This would add \$640 to the tax. The \$640 additional tax would be imposed on account of his income of \$5,000 from municipal bonds. Assuming the \$5,000 income to be interest at the rate of 4.5 per cent on the bonds at par, the principal would be \$111,111.12 and the tax would equal approximately 0.57 per cent, reducing the yield of the bonds to 3.93 per cent. The higher the net income the greater would be the increase in the tax and the lower the yield on the municipal bonds. On the other hand, all of the bond income would be taxable and the net income yield on the same basis of computation for the individual owner of income may be illustrated as follows:

Rate of Income on Investment					
Taxable Income	4%	4½%	5%	5½%	6%
Net Income Yield					
\$5,000	3.904	4.392	4.880	5.368	5.856
10,000	3.764	4.235	4.705	5.176	5.646
20,000	3.602	4.052	4.503	4.953	5.403
50,000	3.265	3.673	4.081	4.489	4.897
100,000	2.752	3.097	3.441	3.785	4.129

*Government Bonds.*—The effect of the tax upon our government bonds is

not so easy to determine on account of the complications of exemption provisions contained in the laws authorizing the various liberty loan issues. The Panama 3's, which did not bear the circulation privilege, sold in the years from 1910 to 1913 at about 102.25 and then yielded approximately 2.90 per cent. The same bonds today sell for about 90 and yield about 3.5 per cent. In the years from 1910 to 1913 municipal bonds had an average yield of 4 per cent. The difference in yield between these bonds and municipals was about 1.10 per cent. Today municipal bonds average to yield about 4.5 per cent and the difference in yield is about 1 per cent. As an illustration of the effect of the income tax, comparison may be made between the bonds of the non-taxable 3.5 per cent first liberty loan and the bonds of the taxable 4.25 per cent fourth liberty loan. In the January 1920 market the 3.5's sold around 99.90 while the 4.25's sold around 92.70. Outside of the effect of the ten-year difference in the terms of the two classes of bonds, the income tax caused the bonds bearing 0.75 per cent more interest to sell about 7 points lower on the market. Neither class of bonds was subject to state taxation but the 3.5's were entirely tax exempt while the higher rate 4.25's were exempt from the normal tax only.

*Federal Farm Loan Securities.*—The effect of the income tax may be further illustrated in the case of the federal farm land bank and joint stock land bank bonds which are free from all United States and state taxes. These bonds bear 5 per cent interest and sold in the January 1920 market to

net about 4.75 per cent. Municipal bonds, which are not subject to federal taxation but are taxed in most of the states, sold in the same market from a 4.50 to a 4.75 per cent basis. With these farm loan securities yielding 4.75 per cent they are equivalent to a taxable bond yielding 5.62 per cent; to an individual having a taxable income of \$20,000 and to one having a taxable income of \$50,000 they are equal to a taxable bond yielding 6.88 per cent.

### *The Tax Free Covenant*

The act of 1913 contained a provision requiring the normal tax, which was then 1 per cent, to be withheld at the source and requiring ownership certificates to accompany all coupons from corporate bonds at the time the coupons were presented for collection. This disclosure of information and the attendant annoyance caused to taxpayers who owned this class of securities influenced a gradual trend of investment from corporate bonds into corporate stocks and mortgage notes, in addition to the trend of investment into municipal bonds brought about by the general provisions exempting them from taxation. As a result of a somewhat similar provision in the income tax laws enforced during the Civil War, there existed, at the time of the passage of the income tax law of 1913, in about 70 per cent of the outstanding corporate bonds of the country, what are known as "tax free covenants." These covenants, in substance, require the obligor of the bonds to pay any income tax which may be required by law to be withheld from the interest paid to the bond owner. Such a covenant became effective under the withholding provisions of

the act of 1913 and had a certain effect in arresting diversion of funds from corporate bonds into mortgages and stocks.

Applying the principal of capitalization to the normal income tax of 1 per cent it would work in theory as follows: The charge to the corporation assuming a normal income tax of 1 per cent upon the interest of a 5 per cent bond is 0.05 per cent a year, so that instead of the corporation paying 5 per cent per annum for the use of its money it would pay 5.05 per cent per annum. This 0.05 per cent capitalized would be about 1 per cent of the face of the bond, or one point in its selling price. This would mean that a corporation in selling a 5 per cent bond to the wholesaler would have to receive 1 point more for the bonds in order to capitalize the normal income tax of 1 per cent. To state it another way: If the owner of a 5 per cent \$1,000 bond had to pay the normal income tax on it he would receive an annual net return of \$49.50 instead of \$50. The result would be the fall of the bond's selling price to 99 which would net him about 5.05 per cent annually or 5 per cent net after paying the tax. If the corporation failed to pay the tax its bonds would bring it 1 per cent or 1 point less and instead of selling at par would sell at 99. If it agreed to pay the tax and received par for its bonds it received the benefit of the capitalization of the tax, and in assuming the tax under a tax-free covenant was out no more than it would have been by failing to assume it and receiving less for its bonds. If the capitalization of a tax of this character were unaffected by other economic factors this would

be the advantage gained by the corporation in selling its bonds with a tax-free covenant and assuming to pay the normal federal income tax.

Other factors enter into the problem of the sale price of bonds but the above illustration shows the trend of the effect of the tax and its capitalization. A good illustration of the effect of the 1 per cent normal tax paid under the tax free covenant existed in a comparison of prices of Chicago and Northwestern Railway 4 per cent general mortgage bonds maturing in 1987. Certain of these bonds issued prior to the passage of the act of 1913 contain the tax free covenant. Certain others, issued after that time, secured by the same mortgage, do not contain this covenant. In a range of prices covering the year 1915 the tax free covenant bonds were quoted and sold about 1 point higher on the market than the same bonds not having such a covenant. The act of 1918 allows the normal tax to the extent of only 2 per cent to be paid at the source under such a covenant.

Some corporations that found this covenant effective for the first time attempted to obtain a repeal of the provisions of the law giving effect to it but Congress concluded that, since the use of the covenant was so prevalent and had such an effect upon the corporate security market, it was unwise to make the requested change.

### *Preferred Stocks*

The income tax law and the excess and war profits tax law had a strong influence in changing the trend of corporate financing by causing the issuance of preferred stocks instead of bonds. The act of 1913 levied a

normal tax of 1 per cent and, in the case of income derived from coupon bonds and in certain other cases, required the normal tax to be collected at the source of payment unless exemption was claimed by the owner as allowed by the law. In order to determine whether or not the normal tax should be collected, an ownership certificate was required to be signed by the owner of the income and to accompany interest coupons presented for collection. The same law provided that no normal tax should be collected from the recipient of dividends from corporate stock, because the corporation was required to pay a tax equal to the normal tax on the earnings from which the dividends were paid. The irritation caused by the disclosure of ownership of corporate bonds through these ownership certificates on the one hand, and the escape of dividends from the direct burden of the normal tax on the other, caused a tendency toward investment in stocks rather than in corporate bonds. This was accentuated when the subsequent laws substituted information certificates for the former ownership certificates and then gradually raised the normal tax to its present rates of 4 and 8 per cent. With the tax at the last figures the yield on preferred stocks may be illustrated as follows:

<i>Taxable Income</i>	<i>Preferred Stock 6%</i>	<i>Dividend 7%</i>	<i>Rates 8%</i>
<i>Net Income Yield</i>			
\$5,000	6.00	7.00	8.00
10,000	5.93	6.92	7.91
20,000	5.79	6.75	7.72
50,000	5.34	6.23	7.12
100,000	4.59	5.35	6.12

It will be seen from these figures that a person having a net income of

\$5,000 or less in dividends escapes the tax entirely and, in the case of incomes over this amount, escapes the normal tax of 4 and 8 per cent. This saving gives preferred stocks the advantage over bonds and notes to the extent of the normal tax. This is the advantage to the owner of the income.

The exclusion of borrowed money as invested capital in the computation of excess and war profits tax has had an influence on corporate financing methods. The revenue act of 1918 imposed an excess and war profits tax which first applied to corporate incomes for the year 1918. It provides that borrowed money may not be included in the computation of invested capital, on which are based the tax credits. Preferred stock may, however, be included in the computation of such invested capital. To illustrate the effect of these credits upon preferred stocks, take a case of 1918 income to which the highest rates of the law apply. Assume a corporation having \$1,000,000 of employed capital earning 6 per cent net in the pre-war period and 15 per cent in 1918, before deducting fixed capital charges. If the employed capital of \$1,000,000 were represented by \$500,000 of common stock and \$500,000 of 7 per cent preferred stock the corporation had an invested capital of \$1,000,000 within the meaning of the law and was entitled to 8 per cent of \$1,000,000, or \$80,000, as its excess profits tax credit. This was deducted from its net income before computing the excess profits tax. It would, in computing the war profits tax be entitled to deduct a credit of 10 per cent, or \$100,000. If the cor-

poration, on the other hand, had the same employed capital represented by \$500,000 of common stock and \$500,000 of bonds bearing 6 per cent it would be allowed credits of 8 and 10 per cent on the \$500,000 common stock, or \$40,000 as the excess profits credit and \$50,000 as the war profits credit. In addition the corporation could deduct 6 per cent interest on the \$500,000 of bonds, or \$30,000, as an expense item. Eliminating the specific credit of \$3,000 for simplicity of computation, the tax, in the case of the corporation having preferred stock, would amount to \$40,000. This, added to the fixed charge of 7 per cent, or \$35,000 of dividends, on the \$500,000 preferred stock would make a total annual charge of \$75,000, or 7.5 per cent upon the \$1,000,000 of employed capital. In the case of the corporation having bonds the tax, similarly computed, would be \$56,000. This, added to the fixed charge of 6 per cent, or \$30,000 of interest on the \$500,000 of bonds, would make a total annual charge of \$86,000 or 8.6 per cent upon the \$1,000,000 of employed capital. This shows that the corporation was better off to the extent of 1.1 per cent annually on its entire employed capital by financing with half preferred stock paying 7 per cent dividends, than with half bonds paying 6 per cent interest. Of course, the advantage would increase or disappear, dependent on the amount of capital, pre-war earnings and tax year earnings but where the advantage existed, as it did in many cases, it had the added effect upon the trend from bond to preferred stock financing.

Thus it may be seen that the advantage to the holder of preferred stock over bonds, to the extent of the normal

tax on the one hand, and the advantage to the borrowing corporation, that existed, in many cases, on the other hand, had the general effect of causing a large increase of preferred stock financing and a relative decrease of bond financing. The advantage to the corporation of preferred stock financing is not so pronounced and more often disappears in 1919 and subsequent year incomes. For instance, using the same illustration based upon 1919 income the corporation would be \$3,000 a year better off by financing with bonds instead of preferred stock. The stock financing would make the total capital charge to the corporation 4.9 per cent as against 4.6 per cent in the case of bonds. This is because the law provides for the elimination of the war profits tax of 80 per cent and a reduction in rates of the excess profits tax for incomes after 1918 but the advantage to the investor still remains, lessened only by the reduction in rates of the normal tax which are effective as to 1919 and subsequent year incomes.

#### *Effect of the Excess and War Profits Tax upon Municipal Bonds*

Certain provisions of the excess profits tax law relating to what are called inadmissible assets have a material effect on the sale of municipal bonds to corporations. When the excess and war profits tax provisions of the law were enacted the framers considered it unfair to allow corporations to base credits upon capital that did not produce income taxable to the corporation. For this reason municipal bonds were excluded in the computation of invested capital. Because of accounting complications, due to the effect of borrowed money, the act

of 1918 was drawn so that the exclusion of municipal bonds was made proportionately. In order to illustrate the effect of this exclusion upon the yield to corporations from municipal bond investments, consider a simple case having no borrowed money complications. Assume a corporation having a capital stock of \$800,000 and a surplus of \$200,000, the \$800,000 being invested in admissible assets and the \$200,000 surplus in municipal bonds bearing 4 per cent interest. Assume that the pre-war earnings of the corporation were 8 per cent and that the net earnings for the tax year 1918, exclusive of bond interest, were \$150,000. Municipal bonds are inadmissible assets within the meaning of the law. Under the rule for the exclusion of inadmissible assets there would be excluded that proportion of the total invested capital of \$1,000,000 which the inadmissible assets, amounting to \$200,000, bears to \$1,000,000. This would exclude one-fifth of the total or \$200,000, leaving an invested capital of \$800,000 for the purpose of computing the credits of 8 and 10 per cent. The war profits tax rate would apply and, excluding the specific exemption of \$3,000 for simplicity in computation, the total tax would be \$56,000.

In order to observe the effect of the exclusion of municipal bonds as inadmissible assets upon the earnings of the corporation, assume that the corporation's surplus of \$200,000 were invested in 6 per cent corporate bonds. This would increase the taxable income to the extent of 6 per cent on \$200,000, making the total net earnings \$162,000. The corporation bonds would constitute admissible assets so that the invested capital for the purpose of the tax credit would be \$1,000,000 instead

of \$800,000 and the resultant tax would be \$49,600. In the case of the surplus being invested in municipal bonds the total net earnings of the corporation would be \$150,000, plus 4 per cent on \$200,000, or \$158,000, which, less the tax of \$56,000, would leave net earnings of \$102,000. In the case of the surplus being invested in corporation bonds the net income of \$150,000 would be increased by 6 per cent on \$200,000, making a total of \$162,000, which, less the tax of \$49,600 would leave net earnings of \$112,400. Thus the total net earnings of the corporation in the case of holding the 6 per cent corporate bonds would be \$10,400 or 5.2 per cent more upon the \$200,000 of surplus. In other words, the corporation by holding the municipal bonds has not only failed to benefit from the income upon them but they have cost the corporation 1.2 per cent in addition to causing a loss of the 4 per cent interest received. The effect of the tax under the same circumstances for the year 1919, instead of 1918, would be far less on account of the elimination of the 80 per cent war profits tax and the consequent application of the 20 per cent excess profits tax rate. Under such circumstances it would cost the corporation only \$800 a year more to hold the \$200,000 municipal bonds than it would to hold the like amount of corporation bonds. This would result in a reduction of 0.4 per cent in the yield of the municipal bonds reducing it to 3.6 per cent. In this connection it ought to be stated that municipal bonds held by mutual savings banks, and other corporations specifically exempted from the operation of the income tax law, are not directly affected by this tax.